

A NEW FLORA FOR THE SAN FRANCISCO BAY AREA¹—One of the delights and compensations of the systematic botanist is his enforced intimate contacts with living dynamic populations of plants while studying them in their wild settings. In *Marin Flora*, Howell conveys to the reader a certain sense of the enjoyment he must have experienced while tramping the Marin hills gathering first hand information about the plants growing there. This book is an account of the plants growing in a single county comprising 529 square miles, but it should be usable in a much larger area of central coastal California. It is based upon an intensive study carried on for more than a ten-year period by its author. However, as is usual in systematics, it reflects the work of several contemporary botanists and many botanists of preceding generations.

Following a description of the physiographic features of Marin County, a section of the book is devoted to "life zones and plant associations". Here the thoughtful student may gain some precise information about the kinds of plants found growing together in various areas and habitats of the region covered. Also included are twenty-four remarkably clear photographs taken by Charles T. Townsend of a variety of views and plants. Howell distinguishes about a dozen plant associations and discusses them under the headings: redwood forest, tanbark oak-madroño forest, oak-buckeye forest, Douglas fir forest, Bishop pine forest, chaparral, coastal brush, coastal grassland, hill and valley grassland, mountain meadow, serpentine grassland, vernal pools, streambank plants, lakeshore plants, freshwater marshes, salt marshes, dunes and beaches.

The major portion of the book is devoted to keys for identifying Marin County plants and to their enumeration. The nomenclature is commendably conservative. Useful notes and localities where a given species has been found are given under each. An appropriately abbreviated glossary and index, together with maps of the county and of Mt. Tamalpais, are appended to the main work. *Marin Flora* should prove to be particularly useful to botanists, amateur and professional alike, in the San Francisco Bay area.—R. C. ROLLINS.

¹ MARIN FLORA: Manual of the Flowering Plants and Ferns of Marin County, California, by JOHN THOMAS HOWELL. VII + 323 pp. with 25 plates and 2 maps. \$4.50, University of California Press. 1949.

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